

## INTERNATIONAL SEARCH REPORT

 International application No. :  
 PCT/SE 2004/001939

## A. CLASSIFICATION OF SUBJECT MATTER

 IPC7: C07D 401/06, C07D 405/06, C07D 409/06, C07D 417/06, C07D 413/12,  
 C07D 491/056, C07D 405/12, A61K 31/4725 A61K 31/4741, A61P 25/04, A61P 25/22  
 According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C07D, A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, CHEM ABS DATA

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MACH, R H ET AL: Synthesis of 2-(5-Bromo-2,3-dimethoxyphenyl)-5-(aminomethyl)-1H-pyrrole Analogues and Their Binding Affinities for Dopamine D2, D3, and D4 Receptors. Bioorganic & Medical Chemistry 11 (2003) 225-233.	1-10,13
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A	WO 03082828 A1 (NEUROGEN CORP), 9 October 2003 (09.10.2003)	1-10,13
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☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "B" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 May 2005

Date of mailing of the international search report

18-05-2005

Name and mailing address of the ISA/

 Swedish Patent Office  
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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 9-10  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claims 9-10 relate to a method of treatment of the human or animal body by surgery or by therapy, as well as diagnostic  
.../...
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The following separate inventions were identified:

I: Claims 1-10 and 13 directed to novel compounds (compound of formula I), their medical use and to a process for their preparation.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-10 and 13

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Box II.1

methods /Rule 39.1(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds.

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## Box III

II: Claim 11 directed to a process for preparation of compounds of formula II.

III: Claim 12 directed to a process for preparation of compounds of formula V.

IV: Claim 14 directed to a process for preparation of compounds of formula IX.

V: Claim 15 directed to a process for preparation of compounds of formula XI.

A partial search has been carried out, which relates to the invention I mentioned above.

The applicant is invited to pay additional fees for each of the inventions II-V as listed above.

The present application has been considered to contain 5 inventions which are not linked such that they form a single general inventive concept, as required by Rule 13 PCT for the following reasons:

Claim 1 relates to the problem of finding new compounds for therapeutic use. This problem appears to be solved by supplying compounds of formula I.

Claims 11, 12, 14 and 15 relate to the problem of preparing some different compounds, all structurally different from compound I. This problem is solved by finding different processes for preparation of the compounds of formulas II, V, IX and XI respectively.

As both problems and solutions are technically different, no single general concept can be formulated based on the technical features of the inventions. Consequently, the requirements of Rule 13.1 PCT are not met.

It was investigated under Rule 13.2 if any further features, either in the claims or derivable from the description, could be considered as a same or corresponding feature and which could be considered a special technical feature establishing a technical link between the five groups of inventions.

No such features were identified.

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

01/04/2005

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WO	03082828	A1	09/10/2003	AU	2003218374	A	00/00/0000
				CA	2479930	A	09/10/2003
				EP	1487798	A	22/12/2004
				US	6777422	B	17/08/2004
				US	20040006069	A	08/01/2004
				US	20040204446	A	14/10/2004

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